

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (CURRENTLY AMENDED) An inbred corn seed designated RBO1, wherein a sample of said seed has been deposited under ATCC Accession number _____ PTA-5627.
2. (ORIGINAL) A corn plant or parts thereof, produced by growing the seed of claim 1.
3. (ORIGINAL) Pollen of the plant of claim 2.
4. (ORIGINAL) An ovule or ovules of the plant of claim 2.
5. (ORIGINAL) A corn plant, or part thereof, having all the physiological and morphological characteristics of the corn plant of claim 2.
6. (PREVIOUSLY PRESENTED) The corn plant of claim 2, wherein said plant further comprises a genetic factor conferring male sterility.
7. (ORIGINAL) A tissue culture of regenerable cells from the corn plant of claim 2.
8. (PREVIOUSLY PRESENTED) The tissue culture according to claim 7, the cells or protoplasts of said cells having been isolated from a tissue selected from the group consisting of leaves, pollen, embryos, roots, root tips, anthers, silks, flowers, kernels, ears, cobs, husks, and stalks.
9. (CURRENTLY AMENDED) A corn plant regenerated from the tissue culture of claim 7, wherein the regenerated plant expresses all the morphological and physiological characteristics of inbred line RBO1, representative seed of said line having been deposited under ATCC Accession No. _____ PTA-5627.
10. (CURRENTLY AMENDED) A corn plant with all of the physiological and morphological characteristics of corn inbred RBO1, representative seed of said inbred RBO1 having been deposited under ATCC Accession No. _____ PTA-5627, wherein

said corn plant is produced by propagating said corn plant from the corn plant of claim 5 by a tissue culture process.

11. (ORIGINAL) A method for producing a hybrid corn seed comprising crossing a first inbred parent corn plant with a second inbred parent corn plant and harvesting the resultant hybrid corn seed, wherein said first inbred parent corn plant or second said parent corn plant is the corn plant of claim 2.

12 - 35. (CANCELED)

36. (PREVIOUSLY PRESENTED) A method of producing a transgenic corn plant comprising transforming the corn plant of claim 2 with a transgene wherein the transgene confers a characteristic selected from the group consisting of : herbicide resistance, insect resistance, resistance to bacterial disease, resistance to fungal disease, resistance to viral disease, male sterility and waxy starch.

37. (PREVIOUSLY PRESENTED) A transgenic corn plant produced by the method of claim 36.

38. (PREVIOUSLY PRESENTED) A method of producing an herbicide resistant corn plant comprising transforming the corn plant of claim 2 with a transgene that confers herbicide resistance.

39. (PREVIOUSLY PRESENTED) An herbicide resistant corn plant produced by the method of claim 38.

40. (PREVIOUSLY PRESENTED) A method of producing an insect resistant corn plant comprising transforming the corn plant of claim 2 with a transgene that confers insect resistance.

41. (PREVIOUSLY PRESENTED) An insect resistant corn plant produced by the method of claim 40.

42. (PREVIOUSLY PRESENTED) A method of producing a disease resistant corn plant comprising transforming the corn plant of claim 2 with a transgene that confers disease resistance.

43. (PREVIOUSLY PRESENTED) A disease resistant corn plant produced by the method of claim 42.

44. (PREVIOUSLY PRESENTED) A method of producing a corn plant with decreased phytate content comprising transforming the corn plant of claim 2 with a transgene encoding phytase.

45. (PREVIOUSLY PRESENTED) A corn plant with decreased phytate content, produced by the method of claim 44.

46. (PREVIOUSLY PRESENTED) A method of producing a corn plant with modified fatty acid or carbohydrate metabolism comprising transforming the corn plant of claim 2 with one or more transgenes encoding a protein selected from the group consisting of stearyl-ACP desaturase, fructosyltransferase, levansucrase, alphaamylase, invertase and starch branching enzyme.

47. (PREVIOUSLY PRESENTED) A corn plant produced by the method of claim 46.

48. (CURRENTLY AMENDED) A hybrid corn seed designated RBO1*LH185 having inbred line RBO1 as a parental line, representative seed having been deposited under ATCC Accession No. _____ PTA-5627 and inbred line LH185, representative seed having been deposited under ATCC Accession No. 75618.

49. (CURRENTLY AMENDED) A hybrid corn seed designated RBO1*LH287 having inbred line RBO1 as a parental line, representative seed having been deposited under ATCC Accession No. _____ PTA-5627 and inbred line LH287, representative seed having been deposited under ATCC Accession No. PTA-1174.

50. (CURRENTLY AMENDED) A method of introducing a desired trait into corn inbred line RBO1 comprising:

(a) crossing the RBO1 plants, grown from seed deposited under ATCC Accession No. PTA-_____ PTA-5627, with plants of another corn line that comprise a desired trait to produce F1 progeny plants, wherein the desired trait is selected from male sterility, herbicide resistance, insect resistance, waxy starch and resistance to bacterial disease, fungal disease or viral disease;

(b) selecting F1 progeny plants that have the desired trait to produce selected F1 progeny plants;

(c) crossing the selected F1 progeny plants with the RBO1 plants to produce first backcross progeny plants;

(d) selecting for first backcross progeny plants that have the desired trait and physiological and morphological characteristics of maize inbred line RBO1 listed in the Variety Description Information to produce selected first backcross progeny plants; and

(e) repeating steps (c) and (d) three or more times in succession to produce selected fourth or higher backcross progeny plants that comprise the desired trait and all of the physiological and morphological characteristics of maize inbred line RBO1 as determined at a 5% significance level when grown in the same environmental conditions.

51. (PREVIOUSLY PRESENTED) A plant produced by the method of claim 50, wherein the plant has the desired trait and all of the physiological and morphological characteristics of corn inbred line RBO1 as determined at a 5% significance level when grown in the same environmental conditions.

52. (PREVIOUSLY PRESENTED) A corn plant produced by growing the corn seed of claim 50.

53. (PREVIOUSLY PRESENTED) A method comprising crossing the corn plant of claim 48 with itself or another corn plant to produce a seed.

54. (PREVIOUSLY PRESENTED) A corn plant produced by growing the corn seed of claim 49.

55. (PREVIOUSLY PRESENTED) A method comprising crossing the corn plant of claim 49 with itself or another corn plant to produce a seed.